

Section A

COVER SHEET

A. Cover Sheet (Attach to front of proposal.)

1. Specify: ☐ Agricultural project or ☐ Individual application or
☒ Urban project ☐ Joint application
2. Proposal title: **A Straight Flush, commercial, institutional, industrial (CII) Ultra Low Flush Toilet (ULFT) Direct Install Program**
3. Principal applicant – organization or affiliation: **Contra Costa Water District**
4. Contact – name, title: **Ray Cardwell, Water Conservation Specialist**
5. Mailing address: **1331 Concord Avenue, Concord, California, 94520**
6. Telephone: **(925) 688-8234**
7. Fax: **(925) 688-8122**
8. E-Mail: **rcardwell@ccwater.com**
9. Funds requested – dollar amount: **\$150,000**
10. Applicant cost share funds pledged – dollar amount: **\$224,000**
11. Duration – (month/year to month/year): **July 1, 2001 to July 1 2003**
12. State Assembly and Senate districts and Congressional district(s) where the project is to be conducted: **Congressional 7th and 10th, State Senate 7th, State Assembly: 11th and 15th**
13. Location and geographic boundaries of the project: **Contra Costa Water District Service Area includes the Cities of Clayton, Concord, Pacheco, Port Costa, Clyde, Pittsburg, Antioch, Bay Point, Martinez (portions), Pleasant Hill (portions), and Walnut Creek (portions).**
14. Name and signature of official representing applicant. By signing below, the applicant declares the following:
____ The truthfulness of all representations in the proposal;
____ The individual signing the form is authorized to submit the application on behalf of the applicant;
____ The applicant will comply with contract terms and conditions identified in section 11 of this PSP

Walter J. Bishop
(printed name of applicant)

(Signature of applicant)

SECTION B

SCOPE OF WORK

1. Executive Summary

As of July 1, 2001, the Contra Costa Water District is planning implementation of a commercial, institutional and industrial (CII) Direct ULFT Install Program for replacement of existing high consumption toilets with new water efficient 1.6-gallon models in order to meet its long-term water conservation goals. The proposed program will offer free ULFT(s) to CII customers, specifically targeting restaurants, retail office, and commercial office customers. The installations will be by a District-hired plumbing contractor.

The proposed program design will accommodate the Americans With Disabilities Act (ADA) requirements for providing ULFTs by offering an ADA-approved ULFT with installation where requested. Additionally, the program will be supplemented with a rebate program (CII ULFT Rebate) to accommodate customers who prefer to choose and/or install their own ULFT(s). Approximately 500 ULFT installations will be targeted each year of the two-year program, at a projected average cost of \$300 per ULFT installed.

2. Project Need

Contra Costa Water District exports its water directly out of the Bay Delta. As such, water conserved by CCWD directly improves the Bay Delta. CCWD has had a water conservation program since 1989, and has replaced nearly 20,000 toilets in ULFT rebate and distribution programs. Toilet replacements are an integral part of the CCWD Future Water Supply Implementation Plan, which projects an overall District-wide water reduction of 5% in the year 2040 of its estimated demand over and above natural conservation through its Water Conservation Programs. Much of the anticipated future water savings are from ULFTs.

To date, CCWD has not had a successful CII ULFT replacement program for several reasons. First, the amount of rebate offered to customers is often not enough to convince them to replace their high consumption toilets. Second, and more importantly, many CII customers cannot take the time to hire a contractor, get an estimate and then submit an application for a rebate. To counter this apathy of CII customers to take action, CCWD proposes to initiate its new program:

A Straight Flush Commercial ULFT Direct Install Program

3. Nature, scope, and objectives of the project

A Straight Flush, Commercial ULFT Direct Install Program will offer Contra Costa Water District CII customers a free ULFT with installation by District-contracted plumber(s). The program for ULFT installation will be marketed primarily to restaurants, retail office, and commercial office buildings, as they offer the highest water savings for toilet retrofit.

The proposed Commercial ULFT Direct Install Program will solicit proposals from C-3 licensed plumbers to purchase and install ULFTs for a variety of commercial installations. Types of installation will include gravity tank style, pressure assist, commercial valve floor mount, and commercial valve wall mount. All program participants will be issued vouchers by the District that will be redeemable for a specific number and type of ULFT installation from the contracted plumber(s), at a contracted price from the District. The District will pay the contracted plumber(s) the contracted price for each type of installation.

The object of the Commercial ULFT Direct Install Program is to reduce water and sewer discharge by District CII customers. A direct mailer will be sent to all restaurant, retail office and commercial office customers to encourage participation in the program. All customers interested in the program will be provided a free cost benefit analysis of the retrofit. Other marketing efforts include a program brochure, web page, press releases, and contractor(s) marketing of the program.

4. Methods and Procedures

District staff will perform pre and post surveys of all sites receiving ULFTs from the Commercial ULFT Direct Install Program. Pre-site surveys will determine average water use per day from the existing high consumption toilets at each site, and post-site evaluations will determine average water use from the new ULFTs, as well as verify proper ULFT installation. Water savings from the program will be calculated based on the cumulative water savings from the average number of flushes per day at each site before and after ULFT installation over the useful life of the ULFT.

5. Project Schedule

The schedule below breaks out the key tasks and sub-tasks for the two-year proposed project.

Task	Task Name	Task Description	Costs	Expected Start	Expected Finish
1	Project Planning		\$4,000	7/1/01	9/1/01
	CII customer identification	Mailing list of CII customers to participate in the program			
	RFP development	Develop RFP for contractor proposals for a variety of ULFT installations for CII customers.			
	Contractor selection	RFP selection of the best contractor proposal for ULFT installation.			
2	Program Administration		\$65,000	8/1/01	10/1/01
	Direct mail CII customers.	Develop flier, brochure, and web-site for the program			
	Promotional ULFT site listing	List of ULFT installations for potential participants to evaluate.			
	Pre site survey and inspection	Perform water use site survey and confirm program eligibility.			

	Issue vouchers for CII ULFTs	Develop program vouchers to issue to participants redeemable from contractor for ULFTs			
	Post site survey and inspection	Post site survey evaluating water conserving measures installed			
3	Direct Install Implementation		\$300,000	10/1/01	6/30/03
4	Data Collection		\$5,000	7/1/01	6/30/03
	Site data	Develop ACCESS database for all participants. Data to include items listed in Section B6 below			
	Water Use Data	Develop water saving calculation for each site receiving ULFTs			
	Post installation questionnaire	Develop a post participation questionnaire to assess the program			
	Provide data	All data collected will be provided to the CUWCC for use in their evaluation report			

6. Monitoring and Assessment

The monitoring of the program will be coordinated through the District's existing Commercial Conservation Program. Because this program will be an integral part of the CUWCC evaluation of CII ULFT programs, the data collected for the program will follow the guidelines proposed by the revised BMP 9. Data to be collected as part of this project will include:

- The number of accounts and amount of water use within each CII sector, participant information (account number, name and address and type of facility), number of toilets being replaced
- Number of CII ULFTs replaced or distributed per year by CII sub sector
- Total program costs per year, including labor, materials, marketing, and overhead services
- Total program budget per year
- Program funding sources per year, including intra-agency funding mechanisms, inter-agency cost sharing, state and federal financial assistance sources
- Description of the program design and implementation, such as marketing and advertising methods and levels, customer targeting methods, customer contact methods, use of outside services, and participant tracking/follow-up
- Description of the program acceptance/resistance by customers, obstacles to implementation, and other issues affecting the program implementation or effectiveness

The Direct install program will target the replacement of 500 high-water-using toilets with ULFTs in the CII sectors each year, for a two-year period. Since water savings are dependent on the type of high consumption retrofitted with a ULFT, a conservative figure for cumulative water savings for the 1,000 CII ULFT installations is 803-Acre Feet over the 10-year useful life of the ULFTs.

SECTION C

OUTREACH, COMMUNITY INVOLVEMENT, AND INFORMATION TRANSFER

1. Outreach Efforts

This program will include the creation of a list of plumbers willing to install toilets at a given price. Solicitation for the plumbers will include minority and woman-owned businesses. Sites targeted to retrofit will include those in CCWD's disadvantaged communities.

2. Training and Employment

This program will improve the local economy in several ways. Plumbers who wish to be on the list will see an increase in work during the program; local plumbing suppliers will realize an increase in toilet sales as a result of the program.

3. Program Results Dissemination

The data from the program will be collected and used as part of the CUWCC BMP 9- CII ULFT Evaluation due to be prepared in FY 03. The results of the evaluation will be provided to all CUWCC signatories as well as to CalFed.

4. Copy of letter to local land use entity or to CCWD

Not applicable

SECTION D

QUALIFICATIONS OF THE APPLICANTS, COOPERATORS, AND ESTABLISHMENT OF PARTNERSHIPS

1. Resumes of Project Managers

See attached résumé.

2. External Cooperators and Partnerships

CCWD will utilize local plumbing firms to implement the program. Since there will be several plumbing firms on the approved list, the amount of work each receive from the program will vary. Therefore, contractors marketing the program will directly benefit from the work they will receive. This will improve the cost effectiveness of the marketing. Secondly, the local sanitary districts (Central Sanitary and Delta Diablo Sanitary) will be asked to participate by marketing to their largest customers.

SECTION E

COSTS AND BENEFITS

1. Budget Summary

The budget for the program is listed in the table below. The total cost for the project is \$374,000. CCWD is requesting \$150,000 from the CalFed funding grant. The remaining \$224,000 will be provided by CCWD. The cost share between CCWD and CalFed is 60/40, respectively, for the project.

Budget Item	Average Cost per Retrofit	Total Cost Est. for 1,000 retrofits (500 per year)	CCWD share	CALFED share
Overhead (clerical)	\$12	\$12,000	\$12,000	0
Salaries	\$40	\$40,000	\$40,000	0
Benefits	\$12	\$12,000	\$12,000	0
Supplies (marketing materials)	\$10	\$10,000	\$10,000	0
Equipment	0	0	0	0
Professional Services (plumber and ULFT)	\$300	\$300,000	\$150,000	\$150,000
Travel	0	0		0
Total	\$374	\$374,000	\$224,000 (60%)	\$150,000 (40%)

2. Budget justification

The primary item in the budget above is the professional service cost of \$300 per retrofit. This estimate is conservatively low for installation costs. We compared our proposed program to the City of Santa Rosa CII ULFT Direct Install Program, and found their average cost per installation was \$350 per retrofit. This includes retrofits to both flushometer and tank-style toilets. Our program intends to target the tank-style toilets primarily, thus reducing the average cost. The salary and benefits costs assume labor of 1½ hours per participating customer. This includes the labor for marketing the program, pre and post-inspections, and labor coordinating with the plumbers. The supplies include the costs for marketing materials.

3. Benefit Summary and Breakdown

Quantifiable Project Outcomes and Benefits

It is anticipated that the 1,000 CII ULFT retrofits will result in water savings of approximately 803 acre-feet, cumulatively over the 10-year life of the toilets. In addition, participants will receive a water use survey to determine any other cost-effective water saving changes that could be implemented.

Non-quantifiable Project Outcomes and Benefits

There are numerous project benefits that can not be quantified. These are listed below:

Non-quantifiable Project Outcomes and Benefits	Beneficiary
Economic savings to customers from less water used and lower sewer costs as a result of installation of the ULFT	All
Improve the Bay Delta ecosystem through the reduction in water diversions by CCWD from the Bay Delta. Increased water use efficiency will have a direct benefit for the availability of water resources in the Delta	All
Sustained economic health of the local business community from a reliable supply of water	All
Energy savings as a result of less water pumped into the system	CCWD
Economic savings to customers from less water used as a result of the installation of water saving equipment	CCWD Customers
Receive information regarding commercial customer attitudes towards ULFTs. This will provide valuable data at the end of the 3-year CII ULFT BMP Target when the CUWCC will prepare its evaluation report	All

Beneficiaries: CalFed (CF), Contra Costa Water District (CCWD), CCWD Customers (Customers), All agencies/ society (All)

4. Assessment of Costs and Benefits

a. Assumptions in Calculating Costs and Benefits

Average cost of all ULFT's installed through program will be \$300

Assume 67% gravity tank style installations at \$285 per installation

Assume 13% pressure assist style installations at \$300 per installation

Assume 10% commercial floor mount installations at \$350 per installation

Assume 10% commercial valve wall mount installations at \$350 per installation

Assume average savings from a CII ULFT retrofit to be 26.1 gpd. ULFT installation costs are based on *City of Petaluma, 1997 CII Replacement Program*, and the CII ULFT water saving assumptions based on the CUWCC estimates of reliable water savings developed as part of the *CII ULFT Savings Study performed by Hagler Bailly Services Incorporated, August 5, 1997*.

CCWD avoided cost of water is \$225 per AF

Customer avoided cost of water is \$2.09 per HCF or \$910.49 per AF

b. Benefits and Costs

The costs for the program and the benefits for the quantifiable savings are listed below.

Participant	Costs	Benefits	
	Program Costs (\$)	Program Life Savings (Water in AF)	Program Life Savings (\$)
CCWD	\$224,000	803 AF	\$180,675
CALFED	\$150,000	803 AF	\$0
Customer	\$0	803 AF	\$1,416,705
Water (\$2.09 HCF)			(\$731,123)
Sewer (\$1.96 HCF)			(\$685,582)